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ABSTRACT OF THE DISCLOSURE

10        A method of detecting nucleic acid fragments in  
plural samples is performed by the steps of: attaching an  
electroconductive label to nucleic acid fragments in one  
sample and attaching a different electroconductive label  
to nucleic acid fragments in another sample; preparing a  
15        mixture of these samples; spotting the mixture on an  
electroconductive microarray having plural electrodes  
onto which probe molecules complementary to the nucleic  
acid fragments are fixed, so that hybridization between  
the nucleic acid fragments and the probe molecules on the  
20        electroconductive microarray can proceed to form hybrid  
structures; applying to the electrode an electric poten-  
tial corresponding to the oxidation-reduction potential  
of the former label and detecting on the electrode an  
electric current; applying to the electrode an electric  
25        potential corresponding to the oxidation-reduction poten-  
tial of the latter label and detecting on the electrode  
an electric current; and comparing the electric current  
detected in the former detecting procedure and that de-  
tected in the latter detecting procedure.

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